

LOUDOUN COUNTY FIRE & RESCUE TRAINING DIVISION TRAINING CATALOG



Message from the Chief

Welcome from the Loudoun County Fire and Rescue system. Loudoun County has a long and storied history of fire and EMS services. The Loudoun County Board of Supervisors and the Department of Fire and Rescue Services is dedicated to a strong combination fire and rescue system. One of the best ways of achieving this goal is through training and education. Whether you are just starting out, or are a seasoned veteran, the Training Division offers classes and courses that will make you a better fire fighter, EMT, or ALS provider. Above all, training and education will help make you be better person. Please let us know if there are courses or classes you would like to see offered in Loudoun County or if there are ways we can make our Training Division even better. I leave you with my personal Vision Statement for the Department of Fire and Rescue:

“We are an organization that provides the best possible emergency and non-emergency services while promoting the safety and wellness of our community and our membership through compassion, innovation and leadership.”

The best way of meeting this vision statement is through training and education.

Robert P. Griffin, Jr., Chief
Loudoun County Fire and Rescue

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Introduction

Purpose

Utilizing the local emergency response community, the purpose of the Training Division is to: Prevent Harm, Survive, Foster Learning, & Be Nice.

Mission

The Mission of the Loudoun County Fire & Rescue Training Center is to:

Through an effective and consumer oriented system of program delivery, the training division will provide training and educational programs that enable emergency response personnel to deliver competent and comprehensive emergency services to persons living, working and traveling within Loudoun County.

The ***Loudoun County Fire and Rescue Training Center*** is located at 16600 Courage Court, Leesburg Virginia. This center is co-located with Fire & Rescue administration and the Loudoun County 911 dispatch center. The facility opened in 1989 to support the emergency response needs of the citizens of Loudoun. The original funding for this facility was supported by the Board of County Supervisors and continues to be supported by that body. All programs delivered at the training center are free of charge to the volunteer and career emergency responders in Loudoun County. This includes the cost of class materials and most equipment used during training. It would not be possible to provide this level of customer service without the support of the County Board of Supervisors, the Fire & Rescue Commission and the Volunteer Fire & Rescue Companies.

The Volunteer Fire & Rescue Companies in Loudoun County support the training effort by providing response vehicles and other equipment when needed, to maintain the training efforts. When personal protective equipment is needed, the student is expected to supply their own equipment, which must be National Fire Protection Association (NFPA) approved equipment or equipment approved by an appropriate standards setting group.

Our business is public safety. Prevention is obviously the area of our business that serves our customer the best. To that end our focus must always be on prevention. When prevention efforts fails we have not done the best for that customer.

However, when prevention programs do fail, we must be able to respond. To accomplish the response-training portion of our mission we must be prepared to respond. Due to the nature of our business, some of the training we do is inherently dangerous. With this in mind, please remember that your safety (prevention) is the most important aspect of any training presented at this facility. Training will be conducted with your own safety in mind. The staff will take a positive attitude about safety with you as you complete training. It is our hope that this attitude will carry over into operations at the emergency scene.

General Rules for the Students

1. Be Nice
2. Students attending classes at the Loudoun County Fire & Rescue Training Center will conduct themselves in a manner as outlined in the Loudoun County Employee Human Resources Handbook, Chapter 3. Students not conducting themselves as outlined in the Loudoun County Employee Human Resources Handbook, Chapter 3, will be instructed to leave the facility. Each station, with career staffing, has a copy of the Human Resources Handbook. Stations without career staff will have access to the handbook at the training center.
3. This facility belongs to the taxpayers of Loudoun County. Care must be taken to ensure that it is not abused. Anyone found to be abusing the equipment or the privilege of training at this facility will be asked to leave.
4. If public school is closed or activities suspended due to weather, we will also close.
5. This facility and the instruction methods are designed for adult learners. Any students not conducting themselves in a professional manner (adult) will be asked to leave the premises by the lead instructor. The Deputy Chief of Training will not allow student to return to class, pending an investigation.
6. Citizens of Loudoun County and members of emergency response organizations from neighboring jurisdictions are invited to attend training programs delivered at this facility, on a space available basis. (Non-affiliated personnel may *generally* only participate in the lecture portion of most programs.)
Non-affiliated personnel will be asked to:
 - Conduct themselves in an appropriate manner
 - Provide or replace any materials used for the program
 - Provide proof of insurance if participating in practical training
 - Provide proof of affiliation, if appropriate
7. Many classes have prerequisites. Please check each training advisory for prerequisite requirements. To participate in any classes that require practical applications, the student must provide their own safety equipment. Safety equipment is generally provided by the sponsoring agency.
8. Daily class schedules will be provided on the first scheduled class day of each program.
9. Turn your pagers and cell phones to vibrate, so not to disturb the class.

Registration Information

At least 30 days in advance of class a **Training Advisory** will be sent to all of the volunteer stations and various other selected sites. The training advisory will contain all essential information about the class, including Title of the class, location of the class, registration dates and special information. When an announcement is posted you may fill out a **Training Request Form** (TD-TR) and submit the form to the training division. Please do not send in Training Request Forms until a Training Advisory is posted. After review by the class coordinator and appropriate committee, you will have a copy of the TD-TR returned to you. The class coordinator will note on the bottom of the form if you have been accepted into the class. If you are accepted to the class please review the special information on the **Training Advisory**. This information may help you prepare for the first day of the program.

Phone Numbers

Contacting students during classes is prohibited except for emergencies. If you have an emergency, the person needing to contact you may call, 703-777-0333, and ask for the course coordinator or tell the call taker the class the person they are wishing to contact is taking.

Staff Contact Numbers

All staff can be reached by calling (703) 777-0333. The training staff works varying schedules. You may leave messages, but it may be the next day before staff is able to return your call.

E-mail is the preferred means of communications

D. Chief Jay Brown	Jbrown@loudoun.gov
Captain Linda Smith/Hale (EMS)	Lsmith@loudoun.gov
Captain John Wisner (Hazmat)	Jwisner@loudoun.gov
Vacant (FIRE)	
LT. Josh Cooper (FIRE)	Jcooper@loudoun.gov
LT. Karl Hummer (FIRE)	Khummer@loudoun.gov
T.O. Jose Salazar (EMS)	Jsalazar@loudoun.gov
T.O. Beau Logsdon (EMS)	Rlogsdon@loudoun.gov

New Member Orientation

The Loudoun County New Member Orientation Program will consist of:

1. An overview of the Loudoun County Fire & Rescue system and volunteer benefits
2. Infectious procedures
3. CPR
4. Hazardous Materials Awareness

This 24-hour program meets the prerequisite for entry into all basic emergency responder programs offered in Loudoun County

LEADERSHIP/OFFICER DEVELOPMENT

Fire Officer Level I

Description: A four-module course designed for “new” fire communication, effective supervision, and vision and resource management. Each module is 16 hours in length and includes the following: Module 1, Company or Station Management; Module 2, Human Resource Management; Module 3, Fire Prevention and Safety Programs; Module 4, Planning and Delivering Emergency Services.

Prerequisites: Firefighter II, Hazmat Operations

Equip. Req.: None

Hours: 64

Standard/Erg: NFPA 1021-92

Fire Officer Level II

Description: A 40-hour course divided into two modules. The course covers all of the NFPA 1997 Officer Standards and was developed with the instructor and student in mind. The following topics are covered: Evaluation; Budget; Data Trends and analysis; Safety and Risk management; Community Relations; Inspections and Investigations; Media Relations and Fire Service Delivery.

Prerequisites: Fire Officer I and Instructor I

Equip. Req.: None

Hours: 40

Standard/Erg: NFPA 1021

Fire Officer Level III

Description: A six-unit course designed to cover all elements of the NFPA officer standard. The following topics are covered: Organizational Structure, Human Resource Management, Planning, Budget, Community Awareness, Public Relations, Inspection and Investigation, Public Fire Education, Safety and Emergency Service Delivery.

Prerequisites: Fire Officer Level II, Fire Instructor Level II

Equip. Req.: None

Hours: 56

Standard/Erg: NFPA 1021-92

NFA Leadership I: Strategies for Company Success (LS-I)

Description: This course presents the company officer with the basic leadership skills and tools needed to perform effectively in the fire service environment.

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

NFA Leadership II: Strategies for Personal Success (LS-II)

Description: This course provides the company officer with the basic leadership skills and tools needed to perform effectively in the fire service environment.

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

NFA Leadership III: Strategies for Supervisory Success (LS-III)

Description: This course provides the company officer with the basic leadership skills and tools needed to perform effectively in the fire service environment.

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

NFA Firefighter Safety and Survival: The Company Officer's Responsibility (FSCO)

Description: This course examines significant areas of firefighter fatalities and injuries associated with emergency and non-emergency situations

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

NFA Incident Command System (ICS)

Description: This course meets the needs of fire officers and managers with responsibilities to use, deploy, implement and/or function within a departmental Incident Command System (ICS).

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

NFA Incident Safety Officer

Description: Examines the Safety Officer's role at emergency situations. Focus will be on operations within the ICS.

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

NFA Managing Company Tactical Operations: Preparation (MCTO:P)

Description: This course examines the critical elements of pre-incident preparation for structural fire fighting operations.

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

NFA Managing Company Tactical Operations: Command Decision Making (MCTO:D)

Description: This course examines the critical elements of situation assessment and decision making for structural fire fighting operations.

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

NFA Managing Company Tactical Operations: Tactics (MCTO:T)

Description: This in-depth course, examines rescue and ventilation, confinement and extinguishment, water supply, exposures and defensive operations, and salvage, overhaul and support.

Prerequisites: None

Equip. Req.: None

Hours: 12

Standard/Erg: None

Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

FIRE FIGHTER INSTRUCTOR

Fire Instructor Level I

Description: A course designed to train participants to organize and deliver basic firefighter programs.

Prerequisites: Firefighter II (new)

Equip. Req.: None

Hours: 32

Standard/Erg: NFPA 1041-97

Fire Instructor Level II

Note: Course curriculum under update review.

Description: A course designed to train participants to perform “jobs and tasks analysis”, develop goals and objectives, and develop evaluation tools for proficiency. A twenty-minute presentation is required.

Prerequisites: Fire Instructor Level I

Equip. Req.: None

Hours: 24

Standard/Erg: NFPA 1041-92

Fire Instructor Level III

Note: Course curriculum under update review.

Description: A course designed to train participants on advanced techniques in constructing lesson plan development and develop training aids to support delivery.

Prerequisites: Fire Instructor Level II

Equip. Req.: None

Hours: 24

Standard/Erg: NFPA 1041-92

EMERGENCY MEDICAL PROGRAM

PREREQUISITES FOR BASIC LEVEL PROGRAMS:

1. Be proficient in reading, writing and speaking the English language.
2. The minimum age for enrollment is 16 years of age at the start of the training program. Students less than 18 years of age attending the course should provide the Instructor with documentation from an Officer of the agency, where applicable, and the signature of a parent or guardian verifying approval of the student attending the course.
3. Have no physical impairment which would render him or her unable to perform all practical skills required for that level of training.
4. Have never been convicted of a felony involving any sexual crime.
5. Not be convicted of any act which is a felony under the laws of this state or of the United States, except that such felon is eligible for certification if within five (5) years after the date of final release no additional felonies have been committed.
6. Shall hold current certification in an AHA BLS for the Healthcare Provider or Red Cross BLS for the Professional Rescuer course.

NOTE: These minimum requirements also apply for enrollment in all other programs administered by the Virginia Office of E.M.S.

BASIC LIFE SUPPORT PROGRAMS

First Responder (4 year certification)

The First Responder Program is a 40 hour (minimum) course intended to provide a basic understanding of human body systems and lifesaving emergency care procedures. This program is designed for fire service personnel, industrial personnel, or law enforcement personnel who may be the first person to arrive at the scene of a medical emergency.

This course is not primarily intended for individuals whose main duty is the provision of ambulance services. It may however be used as a base level at which individuals are introduced to emergency medical care training.

Training in Cardio-Pulmonary Resuscitation (C.P.R.) for adults, children and infants is a requirement for certification at this and all higher levels in Virginia.

Emergency Medical Technician (4 year certification)

The Emergency Medical Technician (E.M.T.) Program is the basis for all higher levels of certification in Virginia. This program provides general instruction in all areas of human body systems and initial care for a wide range of medical conditions. This course requires a minimum of 150 hours of classroom and skills instruction plus 10 hours of clinical observation in a hospital or pre-hospital setting.

Components of this course include the categories listed below. These same categories are used to develop exam questions and study materials.

E.M.T. COURSE TOPICS

Name	Description
1. Preparatory	Well-Being of the EMT, Medical/Legal/Ethical issues, the human body, vitals signs, SAMPLE history and lifting & moving.
2. Airway	Airway management, oxygen therapy, airway adjuncts, and suctioning.
3. Patient Assessment	Initial, Focused - Trauma, Focused - Medical, Detailed, and On-Going assessments. Communications and documentation.
4. Medical / Behavioral / OB/GYN	Respiratory, cardiac, diabetic, altered mental status, environmental, behavioral, poisoning, and allergy related emergencies. Childbirth and gynecological problems.
5. Trauma Emergencies	Bleeding and shock (hypoperfusion), soft tissue injuries, musculoskeletal

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| | injuries, head and spine injuries. |
| 6. Infants and Children | Patient assessment variations, medical and traumatic emergencies relating to children. |
| 7. Ambulance Operations | General EMS operations, gaining access to patients, hazardous materials, and triage. |

Virginia E.M.T. certification is the minimum requirement for provision of patient care as the Attendant-In-Charge on a basic life support ambulance in Virginia.

PREREQUISITES FOR INTERMEDIATE AND ADVANCED LEVEL PROGRAMS:

1. Be at least 18 years of age by the beginning of the training program.
2. Have a current and valid certificate evidencing Emergency Medical Technician certification pursuant to Section 6.0 of the Rules and Regulations Governing Emergency Medical Services.
3. Certification eligible candidates must be affiliated with a licensed E.M.S. agency in Virginia, which provides a level of service equivalent to the level of certification being sought, prior to issuance of their credentials. *(This requirement will be removed effective May 1, 1997.)*
4. Provide evidence of a high school diploma or equivalent.
5. Meet any additional requirements set by local medical control.
6. Meet any additional requirements as set by the local regional E.M.S. council or respective E.M.S. agency.

Enhanced (Old Shock Trauma) Technician (3 year certification)

The Shock Trauma Technician Program provides the technician with specific skills to provide a limited amount of advanced life support (A.L.S.) treatment to patients with traumatic injuries and specific medical conditions. This course is primarily directed at the rural areas of the state where full A.L.S. capability may not be available due to manpower, call volume or funding limitations.

The Shock Trauma Technician is authorized to initiate specific intravenous infusions and administer a limited number of intravenous, subcutaneous and intramuscular medications based upon local medical protocols. Additional skills in airway management and endotracheal medication administration may also be included in the program. The availability of courses and the skills utilized by the Shock Trauma Technician may vary due to local requirements or agency Operational Medical Director discretion.

The Shock Trauma Technician Program consists of a minimum of 57.0 hours of classroom and skills instruction. Clinical rotations totaling at least 30.0 hours in specific hospital departments are also required.

This course was developed utilizing topic outlines from the National Standard Curriculum for the E.M.T. - Paramedic. Topics covered in this course include: roles and responsibilities, human systems and patient assessment, shock, fluid therapy, respiratory system, central nervous system, soft tissue injuries and musculoskeletal injuries.

Intermediate Emergency Medical Technician (3 year certification)

The E.M.T.- Intermediate Program consists of all subjects and skills included in the Shock Trauma Technician Program with additional critical skills necessary to provide advanced coronary care to heart attack victims.

Some E.M.T.- Intermediate programs are conducted as a single program enrolling students at the E.M.T. level and progressing directly to final E.M.T.- Intermediate certification. These programs may also include intermediate certification at the Shock Trauma Technician level.

Certified EMT-E's may attend a bridge course consisting of a minimum of 61.5 instruction hours to attain E.M.T.- Intermediate certification. The length of this bridge program is dependant upon

the time period between Shock Trauma certification and enrollment in the E.M.T.- Intermediate Program.

The entire E.M.T.- Intermediate Program consists of a minimum of 141.5 hours of classroom, skills and clinical instruction. Specific subjects expanded upon in the E.M.T.- Intermediate Program include: advanced radio communications, pharmacology, and cardiovascular system function. Sixty (60) hours of specific hospital clinical rotations are included in the complete E.M.T.- Intermediate Program.

Many E.M.T.- Intermediate Programs include certification in American Heart Association - Advanced Cardiac Life Support, specialized pediatric care and/or advanced trauma care programs. These classes may be blended into the basic course curriculum or taught separately for concurrent certification. Completion and certification in these additional courses should be outlined prior to course enrollment, and may be required by the local E.M.S. Council or Course Medical Director.

Notes on ALS Changes

In Loudoun County there is no differences in local skills authorization between CT/I/P.

Shock Trauma and Cardiac Technicians are ALS levels specific to the Commonwealth of Virginia. These curricula were developed in the late 1970's to meet training and pre-hospital care needs unique to our emerging EMS system.

Development of curricula and supporting materials is a tough job. No significant changes were made in over 20 years. Materials specific to the curricula were not obtainable and had to be adapted from materials designed for EMT-P. Both ST and CT levels worked well for the state when they were put in place, but the growing EMS system eventually passed them by. Today in Virginia, you'll find that almost all ST and CT courses include additional material and enhancements designed to meet current EMS needs. When surveyed, all of the EMS regions in the commonwealth-included protocols not covered in the original curricula. It is time for some pretty significant rewriting at least to reflect the current practices across the state.

The medical direction committee for the state EMS Advisory Board with substantial input from instructors, providers and agencies has worked hard to come to a consensus on the course content. Each region provided a summary of what skills and procedures are described in regional protocols for the ST and CT ALS levels. The new national EMT-Intermediate curriculum was reviewed and compared to current ST and CT curricula. The possibility of rewriting and maintaining both curricula was considered. Several conclusions were reached:

- The new curricula should reflect the current situation across the commonwealth to the greatest extent possible.
- The new plan should include two levels between EMT-B and EMT-P.
- The plan should be based upon national curricula in order to take advantage of materials developed by publishers to support these programs. (ie. textbooks, AV support)
- There must be a way to bridge easily from one level to the next.

With these goals in mind, the medical direction committee chose to accept the EMT-Intermediate curriculum, which closely approximates to what many CT's currently do across the commonwealth. Based upon information obtained from the regions, the committee also created a list of skills and medications for the EMT Enhanced level. Interestingly, the Enhanced EMTs will be doing what many Shock Trauma Technicians do now with some additions. The fact that the curriculum is taken from the intermediate will also make it easier to bridge to the intermediate level.

New ALS Programs

How Many Hours? When Will We Know?

By Ken Clark

When exploring the development of a new training curriculum in any subject there is often a consuming need to determine the time element involved. Just how long will it take to teach the average student to properly understand and perform the necessary skills of the program?

In EMS training programs, deciding these issues is a delicate balance between instruction time and the benefit of more (or less) instruction on patient outcomes. Just how long does it take to teach someone to start an IV, intubate a trachea or administer a medication?

However, because these decisions can mean life or death for future patients, the time element cannot be the sole factor in creating a new or revised training program.

For the new EMT-Intermediate and EMT-Paramedic curricula, these decisions were made for Virginia over several years through the contracted authors and pilot training courses utilized by the U.S. Department of Transportation for the development of these new curricula.

Even when program developments have been completed, these numbers are all always listed as "approximate" because you cannot be limited by an average number when instructing individual students involved in a particular training program.

Some students will need more time to understand a particular lesson or concept while others will grasp the same ideas more quickly.

For an EMT-Basic taking the new EMT-Intermediate or EMT-Paramedic programs, just how many hours an individual student can expect to spend for the required learning experiences will vary, based on their personal learning style and specific circumstances of their course.

For the new Virginia EMT-Enhanced program, even an estimate of the hour requirements cannot be determined specifically until program development is completed and pilot courses instructed. In clinical rotations, strict hour assignments are now being replaced by "skills competencies" because of the many factors that influence these learning experiences.

Among these factors are the location, day and time the students perform their clinical rotation, the types of patients present and the severity of those patient's illnesses and injuries.

A student attending an emergency department clinical in a busy urban medical center on a Saturday evening in the summer is much more likely to encounter a multi-system trauma patient than on a mid-winter Tuesday morning in a small community hospital.

Likewise, there will probably be more geriatric patients with cardiac problems just after a snowstorm than on a spring day in the city.

As each of these programs and the necessary "Transition" programs for existing Shock-Trauma and Intermediate Technicians are developed for Virginia's EMS system, the Office of EMS will collate the necessary lesson subjects and clinical skills. It will publish a comprehensive listing of these numbers.

If all planning proceeds as scheduled, these curricula were completed by December 2000 and pilot courses were conducted to determine the final program lengths in early 2001, implementation should begin in late 2002.

CPR

BLS Healthcare Provider

Course Description	The BLS Healthcare Provider Course is designed to teach the skills of CPR for victims of all ages (including ventilation with a barrier device, a bag-mask device, and oxygen); use of an automated external defibrillator (AED); and relief of foreign-body airway obstruction (FBAO). It is intended for participants who provide health care to patients in a wide variety of settings, including in-hospital and out-of-hospital. For certified or non-certified, licensed or non-licensed healthcare professionals.
Course Length	6-8 hours
Intended Audience	Healthcare providers, such as physicians, nurses, paramedics, emergency medical technicians, respiratory therapists, physical and occupational therapists, physician's assistants, residents or fellows, or medical or nursing students in training, aides, medical or nursing assistants, police officers, and other allied health personnel.
Student Materials	<i>Required:</i> BLS for Healthcare Providers Recommended for licensed or certified healthcare professionals.
Card Type	Course completion, within 30 days from the end of the course
	Required for completion card

Written/Skills Exam	
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CPR Instructors Courses

Course Description	Instructors trained to the 2000 Guidelines meet both these requirements upon completion of the Instructor course. This course is offered twice yearly. A written and practical pretest is required.
Course Length	16 hours
Intended Audience	Healthcare providers, which are proficient in CPR and .
Instructor Materials	Instructors will be provided with all AHA teaching materials.
Card Type	Course completion, within 30 days from the end of the course
Written/Skills Exam	Required for completion card

FIRE FIGHTER PROGRAM

Firefighter Level I

Description:	An entry-level course for new firefighters. Course consists of a combination of classroom study, scenarios and modular practical experiences that will prepare the firefighter to carry out most fireground functions under the direct supervision of an officer or experienced firefighter. The scenarios are designed to train the student in realistic fireground operations.
Prerequisites:	CPR. Students must be at least 16 years of age in order to complete all aspects of the course. Persons under 16 years of age can participate in classroom but are prohibited from skills.
Equip. Req.:	Full turnout gear and SCBA
Hours:	115 (this includes Hazardous Materials Awareness and CPR)
Standard/Erg:	NFPA 1001-97

Firefighter Level II

Description:	A course designed for the Firefighter I who is prepared to assume more of a leadership role in a department. Course consists primarily of classes designed to give the student more knowledge of fireground situations so that he or she can make basic evaluations of safety problems and assume leadership roles in carrying out interior attack and search operations. Hazardous Materials Operations is required to prepare the students to participate in defensive leak and spill control operations.
Prerequisites:	Firefighter I (Including Hazardous Materials Awareness). Persons under 16 years of age may participate in classroom, but are prohibited from skills.
Equip. Req.:	Full turnout gear and SCBA
Hours:	72 (40 hours fire training and 32 Hazardous Material Operations)
Standard/Erg:	NFPA 1001-97

Mayday! Firefighter Down

Description:	A course designed for all members of the fire service from the chief to the newest member. The mission of this class is two-part: first, is to provide training for every member of the team to survive the worst event on the fireground. Second, is to provide chief officers with training to administrate a "two-in/two-out" program and how to meet
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this standard, self-rescue techniques, flashover recognition, how to train and use a Rapid Intervention Team, tactical considerations for RIT, building construction for firefighter safety, firefighter accountability and other safe fireground operations.

Prerequisites: Firefighter Level I
Equip. Req.: Full PPE and SCBA with a spare bottle.
Hours: 16
Standard/Erg: None
Special Note: The practical evolutions are very labor intensive and require a high degree of physical fitness.

Rapid Intervention Team Operations

Description: A course designed for the Loudoun County emergency response personnel, based on the NOVA RIT policy. The target audiences are Chiefs, company level officers and experienced members. The mission of this class is to build on the lessons learned in the State Mayday program and train our member in NOVA RIT policy. As in the Mayday program, this class provides training for every member of the team to survive the worst event on the fireground, but adds the elements of team management and advanced rescue techniques other safe fireground operations.

Prerequisites: Firefighter Level II and Mayday Firefighter Down
Equip. Req.: Full PPE and SCBA with a spare bottle.
Hours: 16
Standard/Erg: None
Special Note: The practical evolutions are very labor intensive and require a high degree of physical fitness. *This program provides a Loudoun County certificate of completion only.*

NFA Fire Arson Detection for First Responders

Description: Provide fire suppression personnel with basic skills in identifying fire origin and determining if the cause may have been and accidental, suspicious or incendiary nature.

Prerequisites: None
Equip. Req.: None
Hours: 14
Standard/Erg: None
Special Note: This is not a certification course. Students will receive training hours and a Certificate of Attendance.

NFA Building Construction

Description: Provides fire suppression personnel with information on building construction characteristics associated with wood frame and ordinary construction.

Prerequisites: None
Equip. Req.: None
Hours: 12
Standard/Erg: None
Special Note: This is not a certification course. Students will receive VDFP training hours and a National Fire Academy Certificate of Training.

HAZARDOUS MATERIAL/RESPONSE TO TERRORISM

Hazardous Materials First Responder Awareness

Description: This course was developed and is presented for those persons who would likely to witness or discover a hazardous materials release. This course teaches the student to 1) Analyze the incident by gathering information 2) Implement actions which are consistent with Local Emergency Response Plans, acceptable Standard of Care, Standard Operating Procedures and the latest edition of the DOT Emergency Response Guidebook. This course is lecture only. Va DEM/Fire Programs Course

Prerequisites: None
Equip. Req.: None
Hours: 8
Standard/Erg: NFPA 472-92 and OSHA 1910.120 (subpart H)
Special Note: Available as a non-certification course.

Hazardous Material First Responder Operations

Description: This course was developed to prepare the Emergency Service Provider with information to safely respond, function and effectively operate at the scene of or potential release of a hazardous material(s). The objectives of this course is to; 1) Analyze the incident by gathering information to determine the magnitude of the problem, 2) Develop a Plan of Action to identify required actions and the resources to accomplish those actions and local Emergency Response Plans, 3) Implement the planned response consistent with Local Emergency Response Plans, and 4) Evaluate the progress of the actions taken. This course will offer the student information to handle the incident in a defensive manner. For those students who have no SCBA Training, the course is 40 hours in length. The student will have to perform skills as well as receive classroom information. Va DEM/Fire Programs Course

Prerequisites: SCBA/PPE qualified (We will provide training, if necessary.)
Equip. Req.: Full turnout gear and SCBA
Hours: 32-40
Standard/Erg: NFPA 472-92 and OSHA 1910.120 (subpart G)

HAZARDOUS MATERIALS-TECHNICIAN

90 hours

This course was developed, primarily, to train the members of a hazardous materials response team to evaluate, determine response objectives, control measures and recovery measures of a hazardous materials release. This course also identifies the role of the technician at the scene of Weapons of Mass Destruction Incident and those incident priorities. This course is offered for local certification ONLY. This course is skill based with several lectures and tests. Va DEM/Loudoun County Program

HAZARDOUS MATERIALS-ON SCENE INCIDENT COMMANDER

46 hours

This course was developed to prepare the officer who will be in command of hazardous materials release. This course covers 1) Emergency Response Plans, 2) Federal Laws and Regulations, 3) Standards and Standard of Care, Incident Management System for Hazardous Materials releases, 4) gathering of information and development of a plan of action, and several table-top exercises. NFA Program

NOTE: All of the above courses meet or exceed the requirements of 29 CFR 1910.120 and the NFPA 472 Standard.

LOUDOUN COUNTY/TOWN of LEESBURG LEPC

2 hours

This program was developed to inform those people of the various communities of the role the LEPC plays within Loudoun County. This program is open to any community member and/or organization.

L.P. Gas Emergencies

Description: courses designed to review the properties of liquefied petroleum gas its use and storage. Various containers, construction, handling devices and different transportation hazards will be addressed through lecture and actual case studies. Exercises will be included using different L.P. Gas props during live burns.

Prerequisites: Firefighter Level I

Equip. Req.: Full turnout gear and SCBA

Hours: Varies, generally 16 hr.

Standard/Erg: NFPA 55-93, NFPA 58-95, NFPA 1403-92, NFPA 1606-93

Special Note: This is not a certification course. Students will receive training hours and a Certificate of Attendance.

Terrorism Programs

SUSPICIOUS LETTERS/PACKAGES

2 hours

This program was developed to assist the First Responder to recognize and perform at the scene of a suspicious letter/package, with or without the release of a product. This course is consistent with the Operating Guidelines for these types of responses in Loudoun County.

EMERGENCY RESPONSE TO TERRORISM: BASIC CONCEPTS

16 hours

This course is designed to prepare the First Responder to take appropriate action at the scene of a potential terrorist incident. The course will provide the student with general understanding and recognition of terrorism, defensive operations, as well as command and control issues. This course was developed for ALL First Responders (Fire, EMS, Rescue, and Law Enforcement) as well as Communications personnel, Emergency Management, Public Works and Health Care providers.

ERT: TACTICAL CONSIDERATIONS-COMPANY OFFICER

16 hours

This course builds on the ERT:BC course. The students will be trained to identify security issues, identifying signs of terrorism, anticipation of unusual response circumstances, assessing information and initiating self-protection measures. This course is for the student who would be the person responsible for the operations at a real or possible terrorist event.

ERT: TACTICAL CONSIDERATIONS-EMS

16 hours

This course was developed to provide the EMS Responder with information to assist with rendering treatment to persons at the scene of a real or possible terrorist event. The student will learn security issues, signs of terrorism, anticipated unusual response circumstances, assessing information and initiating self-protection measures. Anyone who renders patient care is encouraged to take this course.

ERT: TACTICAL CONSIDERATIONS-HAZARDOUS MATERIALS

16 hours

This course was developed for those persons who are Hazardous Materials Technicians with the responsibility of control and/or mitigation of a hazardous materials release. The student will learn

security issues, signs of terrorism, anticipated unusual response circumstances, assessing information and initiating self-protection measures.

ERT: STRATEGIC CONSIDERATIONS for COMMAND OFFICERS

16 hours

This course builds on the ERT:BC course. This course will assist the command officer in preparing an effective response to the consequences, command and control challenges of a terrorist event. The course will cover multi-agency, multidiscipline and multi-jurisdictional response. Students need to have a good working knowledge of the Incident Command System and local Response Plans. This course is intended for Chief Officers, Emergency Managers, Company Officers, shift Leaders, etc.

SPECIALIZED RESCUE

Confined Space Entry Awareness

Description: This program is designed to provide the necessary training to those persons who will act as entry supervisors, attendants and entrants, with regard to the OSHA Permit Required Confined Space Standard 1910.146 regulations.

Prerequisites: None

Equip. Req.: None

Hours: 3

Standard/Erg: OSHA 1910.146 (subpart L)

Special Note: This is not a certification course. Students will receive training hours and a Certificate of Attendance.

Confined Space Entry and Rescue

Description: A course designed to examine hazard recognition, victim access, and stabilization and retrieval. The curriculum closely follows Virginia Labor and Industry guidelines with regard to definitions, equipment and rescue team preparation. Practical and classroom sessions focus on the three primary hazards associated with confined space entry: physical, atmospheric and physiological. Much effort is devoted towards realistic training evolutions using the latest equipment and techniques to assure student retention of the material.

Prerequisites: SCBA Training Required!

Equip. Req.: Full turnout gear and SCBA

Hours: 16

Standard/Erg: OSHA 1910.146 (subpart K), OSHA 1910.147

Farm Machinery, Safety & Extrication

Description: A course designed to prepare fire and rescue personnel to deal with farm machinery accidents. Accidents involving farm machinery are unique due to the fact that the machinery is unfamiliar and the location is usually in remote areas. This course consists of both classroom instruction and practical exercises.

Prerequisites: Students should have basic fire fighting and/or basic rescue skills. Students under 16 years of age may take the classroom instruction but are prohibited from participating in the practical exercises, unless certified at the FF. I level.

Equip. Req.: Full turnout gear

Hours: 16

Standard/Erg: None

Special Note: This is not a certification course. Students will receive training hours and a Certificate of Attendance.

Standard/Erg: Based upon NFPA 1403, 1500, 1410, and 1406

Note: Rope Program is under revision at this time, the following course descriptions may change.

Rope Rescue Level I

Description: A course designed to orient Fire and Rescue provider with methods, under which no other means are available, to access and remove accident victims from elevated and below grade locations. The participant will become familiar with vertical equipment and use. Skills will be developed in rope use, repelling, self-rescue, rigging and victim access. Emphasis is placed on safe and effective rigging procedures including knots, safety procedure, and techniques.

Prerequisites: None

Equip. Req.: Helmet, leather gloves and boots or full turnout gear

Hours: 16

Standard/Erg: NFPA 1983-95

Rope Rescue Level II

Description: A course designed to provide an opportunity for fire and rescue personnel who can demonstrate proficiency in basic rope rescue skills to further their knowledge. Classroom and skills exercises will be utilized to prepare advanced students to remove victims from above and below grade situations. Includes extensive information on rigging and haul-back systems.

Prerequisites: HTR Rope Rescue Level I. Students must successfully pass a pretest at the beginning of the class on Rope I subjects.

Equip. Req.: Helmet, leather gloves and boots or full turnout gear

Hours: 32

Standard/Erg: NFPA 1983-95

Rope Rescue Level III

Description: A course designed to combine and expand on the skills learned in Levels I and II. There is emphasis on construction and operation of horizontal and angled high line systems. Classroom time (minimum) includes advanced rigging theory for single and double track systems.

Prerequisites: HTR Rope Rescue I & II Student must successfully pass a Rope I and II retest at the beginning of the class.

Equip. Req.: Helmet, leather gloves and boots or full turnout gear

Hours: 20

Standard/Erg: NFPA 1983-95

Trench Rescue

Description: A course designed to offer a combination of classroom and practical evolutions that allow the student to learn proper techniques to make open trenches and excavations safe for victim access and removal. Time is spent on locating materials locally and on obtaining a local community resource list.

This class is made realistic by actual sheeting and shoring operations of “unsafe” trenches with shoring equipment as well as developing skills in lifting practices within the trench environment.

Prerequisites: None

Equip. Req.: Helmet, eye protection and/or safety glasses, gloves and work boots (preferably steel toed).

Hours: 16

Standard/Erg: NFPA 1470-94

Vehicle Rescue

Description:	A course designed for Fire and Rescue personnel with basic and intermediate experience in vehicle rescue. Classroom and practical evolutions will alert students to new hazards associated with today's vehicles. Time will be spent on how the laws of physics affect the vehicle and its passengers and the outcome this has on tactical considerations. Emphasis is placed on the development of safe and proficient techniques for vehicle stabilization and lifting, and in the use of airbags and hydraulic systems.
Prerequisites:	It is recommended that the student have experience in the theory and use of basic hand tools.
Equip. Req.:	Full turnout gear
Hours:	16
Standard/Erg:	None

DRIVER OPERATOR

Driver/Operator - Pumper

Note:	Course curriculum under update review.
Description:	A 4 module course (part of the Driver/Operator curriculum) with detailed instruction on the operation, maintenance and design of pumping fire apparatus. The modules include: Module 2, Water Supplies for Fire Fighting; Module 3, Fire Pump Theory; Module 4, Operating Fire Pumps; Module 5, Fire Service Hydraulics. (Module 1 is for EVOC)
Prerequisites:	Firefighter Level I Students are encouraged to have some basic knowledge of the operation of fire apparatus. Students must be EVOC certified (minimum of S-3).
Equip. Req.:	Full turnout gear
Hours:	48
Standard/Erg:	NFPA 1002-88

Driver/Operator - Aerial

Note:	Course curriculum under update review.
Description:	A 4 module course (part of the driver/operator curriculum) with detailed instruction on the operation, maintenance and design of Aerial Ladder Apparatus. The modules include: Module 6, Type and Construction of Aerial Apparatus; Module 7, Positioning Aerial Apparatus; Module 8, Aerial Apparatus, Strategy and Tactics; Module 9, Aerial Apparatus Testing.
Prerequisites:	Firefighter Level II. Students must be EVOC (minimum of S-3 or S-4 if tractor drawn aerial used).
Equip. Req.:	Full turnout gear
Hours:	32
Standard/Erg:	NFPA 1002-88

Emergency Vehicle Operations (Levels 1-3)

Description:	A course designed to enhance safe vehicle operation by stressing theory and principles of defensive driving in both emergency and non-emergency situations. Virginia Motor Vehicle law pertinent to the operation of emergency vehicles is included in the course. This class is not designed to teach the student to drive, but rather to explain how emergency driving differs from non-emergency driving. Although some driving experience will be gained through the practical exercises it is strongly recommended that the student have adequate driving experience, in the vehicle classification listed, before this course. The course requires 16 hours of instruction (90% attendance required for certification), 8 hours classroom and 8 hours consisting of practical exercises. A written examination is required for the classroom portion and students will be evaluated during the driving exercises. An EVOC certificate will be awarded to each student successfully completing the course.
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Prerequisites: Students must have a valid driver's license in order to participate in the practical exercises. Students must be 18 years of age (minimum) to receive certification. Students less than 18 years of age may take the classroom instruction and may participate in practical exercises through the "core course" only. (This participation will be governed by insurance.)

Equip. Req.: None. Students are encouraged to bring apparatus for practical sessions.

Hours: 16

Standard/Erg: NFPA 1002-93

Pump Operations, Basic

Description: A course designed for new operators with emphasis on hands-on operation of pumpers at draft and from hydrants, and relay operations.

Prerequisites: None

Equip. Req.: Full turnout gear required. Departments sending students are strongly encouraged to send apparatus, if possible.

Hours: 16

Standard/Erg: Based on NFPA 1002-93

Special Note: This is not a certification course. Students will receive VDFP training hours.

Rural Water Supply - Level I

Description: A course designed for the rural fire department that depends heavily on tanker shuttles to provide water at the fireground. Course consists of classroom training on equipment needed, apparatus placement on the fireground and the fill site, safety and extensive hands-on training conducting tanker shuttles under realistic conditions.

Prerequisites: None (Apparatus drivers are strongly urged to have completed EVOC and be qualified in the operation of their vehicles)

Equip. Req.: Full turnout gear. Students departments are encouraged to bring apparatus for the practical evolutions.

Hours: 16

Standard/Erg: None

Special Note: This is not a certification course. Students will receive training hours and a Certificate of Attendance.

Other Seminars

The Volunteer Retention and Recruitment Committee of the Fire-Rescue Commission offers special seminars on leadership, recruitment and retention issues, and other related topics to the fire and rescue system on an annual basis.